MCT

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June 18, 1996

Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: ET Docket 96-8

Dear Sir:

Please find enclosed an original and nine copies of the Comments of Microwave Communications Technology Inc., in response to the above referenced Notice of Proposed Rulemaking.

Please address any questions to the undersigned.

Sincerely

J. H. Bari

John Bari
President

No. of Copies rec'd 0+9
List A B C D E

Before the
FEDERAL COMMUNICATIONS COMMISSION FCC 96-36
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 2 and 15 of the	)	ET Docket No. 96-8
Commission's Rules Regarding Spread Spectrum Transmitters	)	RM.-8435, RM.-8608, RM.-8609

COMMENTS OF MICROWAVE COMMUNICATIONS TECHNOLOGY INC.

Microwave Communications Technology Inc. (MCT) submits these comments in response to the Notice of Proposed Rulemaking ("NPRM") in the above referenced proceeding.

1. Section 2.1(c) defines Spread Spectrum Systems. *"A spread spectrum system is an information bearing communications system in which: (1) Information is conveyed by modulation of a carrier by some means, (2) the bandwidth is deliberately widened by means of a spreading function over that which would be needed to transmit the information alone. (In some spread spectrum systems, a portion of the information being conveyed by the system may be contained in the spreading function.)"*

In order for the Commission to continue to promote product innovation, MCT believes that the wording of Section 15.247(a) of the rules should be broadened to allow the development and use of spread spectrum products as defined in Section 2.1(c). These products would have to comply with all of the requirements of 15.247, such as: maximum output power, power density, processing gain, EIRP, out-of-band emissions, etc.

MCT therefore respectfully suggests that 15.247(a) be revised to read:

"Operation under the provision of this section is limited to spread spectrum intentional radiators, including systems using frequency hopping and direct sequence spread spectrum techniques, that comply with the following provisions:"

2. Antenna Gain Limits.

MCT supports the removal of EIRP limits on systems using high gain antennas in the 2450 MHz and 5800 MHz bands.

High gain antennas have, by definition, narrow beam widths. The use of antennas with narrow beam widths increase the ability to re-use frequencies. The ability to re-use frequencies increases the efficient use of the available spectrum. In the real world environment, directional, high gain, antennas are typically used over long distances that require line-of-sight. This usually means that the antennas have to be mounted on the top of towers or buildings.

Mobile systems typically operate over relatively short distances at or near ground level. In a mixed environment, of Mobile and Wireless LANs and fixed systems, we would expect the major harmful interference to be between mobile units and wireless LANS, and from mobile and wireless LANs into fixed systems.

Communication systems must be allowed an EIRP sufficient to overcome the radiation from non-communications ISM equipment. Therefore, MCT believes the Commission should consider the effects of harmful interference to communications systems caused by non-communications equipment operating under Part 18 of the Rules.

In summary, MCT contends it has been demonstrated, by the deployment of thousands of units, that the old rules (1 Watt into any antenna), allow communication systems to coexist in the ISM environment. Therefore, MCT believes that limiting the EIRP to 6 dBW would not be in the public interest.

Respectfully submitted,

Microwave Communications Technologies Inc.

J. H Bari

John Bari

President